


The undersigned attorney respectfully requests that the above amendments be entered. Subsequently, prompt and favorable action is earnestly solicited.

Respectfully submitted,

Date: August 17, 2001
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MARKED UP VERSION OF AMENDMENTS

At page 1, before line 1:

RELATED APPLICATIONS

This application is a divisional application of U.S. Application No. 09/488,647 filed on January 20, 2000, which claims priority to U.S. Application No. 08/853,171 filed on May 8, 1997, now U.S. Patent No. 6,069,017, which is a divisional application of U.S. Application No. 08/396,694, filed March 1, 1995, now U.S. Patent No. 5,661,408.

At page 10, first paragraph:

In brief overview, and referring to Fig. 1, an embodiment of such an apparatus 10 for the real-time, in-line, electrical characterization of a semiconductor during manufacturing using induced surface photovoltage includes a sensor ~~probe~~ head assembly 14, supporting electronics 18, and a wafer conveying device 22. In operation, the wafer conveying device 22, such as a conveyor belt, a robotic arm, a wafer chuck or similar device, moves wafers 28, 28' through the manufacturing process and, in one embodiment, beneath the sensor head assembly 14.

At page 10, second paragraph:

Referring to Fig. 2, the sensor ~~probe~~ head assembly 14 includes a probe head 32 mounted in a bracket 36 on a motorized stage 40. The motorized stage 40 moves the probe head 32 in a vertical direction (arrow z) to adjust vertical position of the probe head 32 with respect to the wafer 28 to within a 0.2 μm accuracy. The mechanical stage 40 is attached to a probe arm 44.

In the claims:

53. (Amended) A semiconductor wafer fabrication system comprising:

a sealed chamber for processing said semiconductor wafer; and a head assembly comprising:

a modulated light source exposing at least a portion of said semiconductor wafer to light of a predetermined having a wavelength and modulated at a predetermined frequency; and

a surface photovoltage sensor detecting a surface photovoltage induced at the surface of said semiconductor wafer in response to said light ~~from said modulated light source~~ without contacting said wafer, wherein said photovoltage is used to calculate an electrical property of said semiconductor wafer.

said surface voltage sensor of said head assembly located within said sealed chamber.